

Amendments to the Specification

Immediately following paragraph 5, please insert:

DESCRIPTION OF THE DRAWING

[0006] The Figure shows the present invention in block diagram.

Please replace paragraphs 7 through 13 with the following amended paragraphs:

[0007] In accordance with the invention, the problem is solved by a control method [comprising the features of claim 1] for gas burners for providing a gas-air mixture, namely for supplying a gas flow and a combustion air flow to a burner, a signal of a sensor being used for adapting the gas-air mixture to different gas qualities, wherein the signal of the sensor is used for adapting the gas-air mixture to different gas qualities at selected points in time.

[0008] Preferred further developments of the invention [result from the subclaims and the] will become apparent from the following description.

[0009] As shown in the Figure, [The] the control method for gas burners is used for providing a gas-air mixture for a burner 10. To this end, a gas flow 20 and a combustion air flow 30 are supplied to the burner. The ratio between gas flow and combustion air flow or the ratio between gas pressure and combustion air pressure, respectively, is called composition ratio.

[0010] The combustion process in the burner is supervised by means of a signal supplied by a sensor 40. The sensor may, for instance, be an ionization sensor, another flame supervision sensor, a gas quality sensor, a flue gas sensor, a combustion gas sensor, or the like. From the sensor signal, information on the combustion process and, thus, on the existing gas quality can be gained.

- [0011] According to the invention, the signal of the sensor is exclusively used at selected points in time by a time selector 50 for adapting the gas-air mixture to different gas qualities by use of an adapter 60 which may be valves like those shown in U. S. Patent 6,561,791 B1 or U.S. Patent 6,537,060 assigned to the assignee of the present invention. This ensures that the control is not adversely affected by aging processes of the sensor.
- [0012] Preferably, the signal of the sensor is exclusively used immediately after the installation 70 of the sensor for adapting of the gas-air mixture to different gas qualities. In this way, it is ensured that the adaptation of the composition ratio is only effected in the case of new sensors which have not yet been subjected to any aging.
- [0013] It is also conceivable that the signal of the sensor is exclusively used immediately after the installation of the sensor, immediately after a fresh start 80 of the gas burner and immediately after a reset 90 for adapting the gas-air mixture to different gas qualities. "Fresh start" is to be understood such that this may be a renewed start of the operation after a voltage loss. Since the composition ratio is adapted at selected points in time only, negative influences by aging processes of the sensor can be minimized in this further development of the control method, as well.

Please replace paragraph 16 with the following amended paragraph [0016].

- [0016] The control method according to the invention is independent of the nature of the sensor or system used. It may be applied in conventional systems, such as described in DE 196 39 487 or also in so-called electronic gas controllers according to [WO99/63272] the above mentioned U.S. Patents 6,561,791 B1 and [WO99/63273] 6,537,060 B2. Here, express reference shall be made to the disclosure content of

[WO99/63272] U. S. Patent 6,561,791 B1 and [WO99/63273,] U.S. Patent 6,537,060
and this shall be part of the present description.